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| 7055 | 7590 | 10/13/2004 | EXAMINER | |
| GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191 | | | ADDIE, RAYMOND W | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/913,346

Applicant(s)

MICHAUT, JEAN-PAUL

Examiner

Raymond W. Addie

Art Unit

3671

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 August 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 10,12-15,18,24-29,31 and 32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10, 12-15, 18, 24-29, 31, 32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10, 12-15, 18, 24, 25, 28, 29 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Non-patent literature to Van Bochove G G; "NIEUW CONCEPT

VOOR ZEER OPEN ASFALTBETON" WEGEN, Vol. 64, No. 6, 1 June 1990 (199990-

06-01) pages 30-31 in view of Hendriks et al. # 5,910,212.

Van Bochove, as cited in an International Search report issued May 12, 2000 discloses a bituminous draining roadway comprising:

An upper partial layer (2), having a particle size distribution in the range of 11/16 mm or 16/22 mm.

A lower partial layer (1), having a bituminous binder and a particle size distribution in the range of 4/8 mm.

See highlights added to Fig. 1 by the Examiner; as well as page 5 of the translated document, previously provided by the Examiner.

Wherein the upper layer further comprises a modified bituminous binder, such as rubberized asphalt having a filler material in the size range of 0/8 mm, and an optional 2nd filler material, such as sand.

Further wherein a ratio of the particle size distribution of the lower layer and the particle size distribution of the upper layer is in the range of 3:1 to about 4:1, such that 16/22mm : 4/8 mm is in the range of 3:1 to about 4:1.

Although Van Bochove discloses a Very Open Asphalt composition (voac) Van Bochove does not disclose using a filler material able to pass an 80 micron sieve or a void ratio of the asphalt composition. However, Hendriks et al. positively recites Very Open-graded asphalt compositions are known to have an aggregate distribution as follows "The aggregate consisted of 5.7% nm of Filler Rhecal 60 (<63 .mu.m), 10.1% crushed sand (0.063-2 mm) and 84.2% m Dutch Crushed Gravel (8-11 mm)". Wherein the filler RHECAL 60, and the sand fraction (10.1% at .063mm-2mm) are both filler materials. See col. 3, Ins. 30-40. As well as a void content ranging between 20-30% and can be applied to a roadway at a temperature less than 140⁰ C.

Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to provide the Very Open Asphalt composition of Van Bochove with a filler material able to provide a void content in the range of 20-30%, as taught by Hendriks, in order to maximize the porosity and thus the water draining capability of the roadway. See Hendriks Col. 3, Ins. 18-22; col. 4, Ins. 5-11.

In regards to Claims 12-15 Van Bochove discloses the particle sizes of the lower layer can be in the range of 11/16 mm or 16/22 mm and can consist of broken stone, gravel and/or crushed rock. The particle sizes of the upper layer can range from 4/8 mm and can consist of small stones. Both or either layer can have a single-grained mixture, which inherently requires at least 95% of the aggregate mixture to be of a single grain size.

2. Claims 26, 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over NPL to Van Bochove in view of Hendriks et al. # 5,910,212 as applied to Claim 25 above and further in view of Kim et al. # 5432213.

Although Van Bochove in view of Hendriks et al., do not disclose the preferred thickness for each of the layers of the roadway being formed, Van Bochove does disclose the theoretical maximum thickness is not necessary. Further, Kim et al. teaches water-permeable asphalts "voac" can be formed in continuous, multiple, stacked layers, wherein the top(wear) coarse can be between .05-3 cm; and a lower (base) coarse can be between .55-5.5 cm; in order to balance the competing needs of strength and porosity. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to make the roadway of Van Bochove in view of Hendriks, in layers greater than 1/2 mm and less than 4cm thick, in order to provide sufficient strength, in very open concrete mixtures. See Kim et al., Col. 4, Ins. 19-35; Fig. 1.

3. Claims 10, 12-15, 18, 24, 25, 28, 31, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over NPL to Van Bochove in view of EP 0605377 A2 reference to Bredael.

Van Bochove, as cited in an International Search report issued May 12, 2000 discloses a bituminous draining roadway comprising:

An upper partial layer (2), having a particle size distribution in the range of 11/16 mm or 16/22 mm and a modified bituminous binder, such as rubberized asphalt.

A lower partial layer (1), having a particle size distribution in the range of 4/8 mm.

See highlights added to Fig. 1 by the Examiner; as well as page 5 of the translated document, previously provided by the Examiner.

Wherein a ratio of the particle size distribution of the lower layer and the particle size distribution of the upper layer is in the range of 3:1 to about 4:1, such that 16/22mm : 4/8 mm is in the range of 3:1 to about 4:1.

Although Van Bochove does not disclose the constituent amount of filler material in the mixture, Bredael teaches a surface draining layer having a granular material in the range of 6/17mm and 0.08/2 mm, such as fly ash and a modified bituminous binder, such as SBS and an additional 3-8% by weight of filler material having a particle size of less than 0.08mm.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, to provide the Very Open Asphalt of Van Bochove, with a quantity of filler material in the range of 3-8% by weight and SBS, as taught by Bredael, in order to reduce road noise. See Translated document Pages 2-5.

In regards to Claims 18, 24 Van Bochove discloses the use of a Very Open Asphalt composition (voac) but does not disclose the void ratio of the asphalt composition. However, Bredael teaches that VOA Compositions desirably have a void content between 15-30% and the modified bituminous binder is added in the range of 2-7% by weight. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made to provide the VOAC of Van Bochove with a void content of at least 25% and a bituminous binder in an amount greater than 4% by weight, as taught by Bredael, in order to prevent pooling of surface water on the roadway. See page 5 of the translated document.

Response to Amendment

4. The amendment to Independent claims 10, 25, 28 requiring the filler material to be able to pass through an 80 micron mesh sieve, has overcome the 35 U.S.C. 102(b) rejection as being anticipated by Van Bochove. However, since the previously cited reference to Hendriks et al. '212 does disclose the use of a filler material having a

diameter of 63 microns or more. Hence, a New Grounds of Rejection of the Independent claims has been put forth above.

Response to Arguments

5. Applicant's arguments with respect to claims 10, 12-15, 25, 28 have been considered but are moot in view of the new ground(s) of rejection.

6. Applicant's arguments filed 8/2/04 have been fully considered but they are not persuasive.

Applicant argues against the combination of Van Bochove in view of Hendriks et al. by stating "the rejection of dependent claims 18, 24, 29...is based on a combination of the teachings of (van) Bochove and Hendriks et al...Hendriks et al. does not cure the deficiencies of (van) Bochove set forth above".

However, as put forth in the rejection of claims 10, 12-15, 18, 24, 25, 28, 29 Hendriks et al. explicitly recites the use of a 1st filler material (RECHAL 60) and sand, both of which have a diameter able to pass a 80 micron mesh sieve. See Col. 3, Ins. 30-40.

Therefore the argument is not persuasive and the rejection is upheld.

Applicant then argues against the combination of Van Bochove in view of Kim et al. by stating "regarding the thickness ranges recited in claims 26 and 27, the rejection relies on disclosure of KIM et al. which relates to the road blocks for foot paths as illustrated in Fig. 1...whereas the resinous pavement which is illustrated in Fig. 2 of this document and which would appear to be more closely related to the road blanket of Bochove than the roadblocks of fig. 1, has thickness ranges of 3-5cm and 5-20 cm respectively...completely outside of the ranges recited in claims 26 and 27".

However, the Examiner does not concur.

Nothing in the Actual Claim Language distinguishes the claimed "bituminous blanket" from a block, a roll or any other preformed, bituminous paving material.

The fact that the prior art discloses multiple embodiments, having different intended uses, is not relevant to the limitations cited in the claims.

Rather obviousness is shown when the entire disclosure of the cited references are taken as a whole to determine what would be obvious to one of ordinary skill in the art, at the time the invention was made. In this case although Van Bochove does not disclose the thickness of the roadway layers formed, Kim et al. discloses forming paved surfaces having the thicknesses claimed.

It is noted the claimed invention is drawn to a road comprising the claimed paving material but does not discern nor provide criticality for the paving layer thicknesses claimed. Therefore, the arguments are not persuasive and the rejection is upheld.

Applicant then argues against the combination of Van Bochove in view of Bredael by stating "there is no motivation to combine the teachings of (van) Bochove and Bredael since one of ordinary skill...will recognize that these documents relate to conceptually entirely different types of road blankets, i.e. a two-layer structure on the one hand and a single-layer structure on the other hand...This difference in structure manifests itself in various other differences.

However the Examiner does not concur.

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, both Bochove and Bredael disclose VOAC (Very Open Concrete) having a granular material and a bituminous binder. What is at issue is whether or not there is a patentable distinction between the claimed road and the teachings of the prior art. To this extent the primary reference discloses the claimed invention except for the now claimed filler able to pass an 80 micron sieve.

To that extent Bredael explicitly discloses that open-type concretes are advantageously provided with filler materials and a modified bituminous binder, such as SBS wherein an additional 3-8% by weight of filler material has a particle size of less than 0.08mm.

Hence, since both references are directed to VOAC compositions and at least the secondary reference to Bredael teaches using filler materials as claimed, the arguments are not persuasive and the rejection is upheld.

Conclusion


7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Raymond W. Addie whose telephone number is 703 305-0135. The examiner can normally be reached on 8-2, 6-8.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas B. Will can be reached on 703 308-3870. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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RWA
10/6/04